

REMARKS

[0001] For the Examiner's convenience and reference, Applicant's remarks are presented in the order in which the corresponding issues were raised in the Office Action. The distinctions identified and discussed below are presented solely by way of example to illustrate some of the differences between the claimed invention and the cited references. In addition, Applicants request that the Examiner carefully review any references discussed below to ensure that Applicants' understanding and discussion of the references, if any, is consistent with the Examiner's understanding.

STATUS OF THE CLAIMS

[0002] Claims 1-33 remain in the case. Claims 1-9, 11-29, 31-33 stand rejected. Claims 10 and 30 are objected to. Applicants have amended Claims 1-3, 12, 15-16, 19-23, 26, and 32-33. No new claims have been added.

EXAMINER INTERVIEW

[0003] Applicants express appreciation to Examiner Phuong and Supervisory Examiner Urban for conducting a telephone interview on Tuesday, September 13, 2005. In that interview, proposed amendments to the independent claims were discussed in relation to the primary reference Malhotra, defined below. In the interview, the Examiners and Applicants' attorney discussed a proposed amendment similar to the Amended Claim 1 in this Office Action Response. Examiners made suggestions to clarify the meaning of Claim 1, and Applicants have attempted to respond to the Office Action in harmony with the suggestions raised in the interview.

AMENDED CLAIMS

[0004] Applicants amended Claims 1-3, 12, 15-16, 19-23, 26, and 32-33 to clarify the claims.

[0005] With respect to Claim 1, three changes were made. First, the word "establish" was changed to "maintain." Maintain represents the function of the claimed invention as the claimed invention periodically assesses and updates the plurality of communications quality parameters over a period of time. This amendment is supported by original Claim 8. This

amendment is further supported by paragraph 72 from the published version of the application (U.S. 2005/0070294 A1) which states that “the channel assessment process 800 may **continually** assess one or more available channels...” (emphasis added).

[0006] The second change ties the updating of the communications quality parameters to the identification of an interference source type. This is supported by paragraphs 47 and 57 from the published version of the application (Lyle, et al. U.S. 2005/0070294 A1, hereinafter Lyle) which states, “In establishing the communications quality parameter for a given communication channel, the assessment module 322 may take into account the presence of an interference signal 138...[and] may determine the type of interference source.”

[0007] The third change clarifies that an interference source type is identified “based on the characteristics of an interference signal present on one of the plurality of wireless communications channels.” This incorporates the elements of original Claim 3 along with suggestions made by the Examiners. The change is further supported by paragraph 47 of the published application.

[0008] Applicants amended Claims 3 and 23, to recite that “identifying a type of interference source ... comprises determining a correlation between the characteristics of the interference source and characteristics produced by” specific interference sources. The original specification mentions the listed interference source types: microwave oven, cellular phone, access point, personal digital assistant, laptop computer, and wireless printer. Lyle, ¶¶ 4,7, 9. The original specification also states that “it may be possible to determine the type of interference source 130, 132, 134, 136 causing a particular interference signal 138 based on the characteristics of the interference signal 138.” Lyle, ¶47.

[0009] Applicants submit that the claim amendments do not add any new matter and that the original specification fully supports the claim amendments.

RESPONSE TO CLAIM REJECTIONS UNDER 35 U.S.C. § 102(b)

[0010] Claims 1-9, 11-29, and 31-33 were rejected under 35 U.S.C. 102(e) as being anticipated by Malhotra et al. (Pub. No: 2002/0181417, hereinafter Malhotra). Applicants respectfully request reconsideration of these claims as now amended.

[0011] It is well settled that under 35 U.S.C. §102 “an invention is anticipated if . . . all the claim limitations [are] shown in a single art prior art reference. Every element of the claimed invention must be literally present, arranged as in the claim. The identical invention must be shown in as complete detail as is contained in the patent claim.” *Richardson v. Suzuki Motor Co., Ltd.*, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989). Applicants respectfully assert that Malhotra does not teach or disclose each element of the amended independent claims.

[0012] Applicants respectfully submit that amended Claim 1 clearly recites features not taught or suggested in Malhotra. Malhotra, in general, is directed toward an algorithm for the assignment of channels used by access points (APs) in wireless LANs. The algorithm tracks channels for which the signal level of a given channel exceeds R_{carrier} and R_{defer} levels. The algorithm includes logic to determine the how often interference levels should be sampled and compared to R_{carrier} , R_{new} , and R_{defer} . (Malhotra, ¶ 60). Malhotra teaches that microwave ovens, computer interface cards and access points all create interference. However, Malhotra only uses these as examples of sources of interference. Malhotra does not teach the identification of interference source types or the use of identifying source types in selection of a channel. Rather, Malhotra only tracks channels for which the interference levels exceed one of three fixed thresholds (R_{carrier} , R_{new} , and R_{defer}).

[0013] Amended claim 1 incorporates the elements of original Claim 3, stating that the communications quality parameters are updated **“in response to identifying a type of interference source based on the characteristics of an interference signal...”**

[0014] Malhotra does not contain any teaching suggesting that it would be advantageous to “identify[] a type of interference source.” Rather, Malhotra teaches the identification only of interference signal levels broken into three groups: a detectable level (above r_{carrier}), an undesirable level (above r_{defer}), and moderately undesirable level (above r_{new}). See Malhotra, ¶ 60.

[0015] The Office Action suggested that “assess[ing] a type of interference source” is found in paragraphs 52 and 59 of Malhotra in that “...the circle 6 depicts the positions in which the receive level of the signal coming from IS equals the carrier detect threshold of AP1” Office

action page 4, 1st paragraph, citing Malhotra, ¶ 52. However, Applicants respectfully point out that the cited reference speaks of an interference source, not different types of interference sources. Further, the cited paragraphs focus on the signal level at which interference equals the carrier detect threshold. Malhotra does not teach a method of identifying different types of interference source and Malhotra does not explain why identifying different types of interference sources would be advantageous. As explained in the telephone interview, Malhotra concentrates on three signal levels from interferences sources and does not "identify[] a type of interference source based on the characteristics of an interference signal," nor does Malhotra "update the plurality of communications quality parameters in response to identifying a type of interference." Therefore, Malhotra fails to teach the features recited in original Claim 3 that have been incorporated into amended Claim 1.

[0016] The elements of original Claim 3 now incorporated into amended Claim 1 claim communications quality parameters updated "in response to identifying a type of interference source base on the characteristic of an interference signal." Applicants respectfully submit that amended Claim 1 is not anticipated by Malhotra and was not obvious in light of Malhotra and further submit that amended Claim 1 is in condition for allowance.

[0017] Applicants submit that amended independent Claims 12, 15-16, 20-21, 32, and 33 incorporate substantially the same elements as those discussed with respect to amended Claim 1 and that amended independent Claims 12, 15, 16, 20, 21, 32, and 33 are allowable for the same reasons discussed in relation to amended Claim 1.

[0018] Applicants further submit that Claims 2-11, 13-14, 17-19, and 22-31 depend from amended independent Claims 1, 12, 16, and 21, respectively and include all of the limitations of independent Claims 1, 12, 16, and 21, respectively, therefore are allowable for the same reasons that independent Claims 1, 12, 16 and 21 are allowable.

CONCLUSION

As a result of the presented amendments and remarks, Applicant submit that Claims 1-33 as amended are patentable and in condition for prompt allowance. Should additional information be required regarding the amendments or the remarks enumerated above, the Examiner is

respectfully invited to contact Applicant's attorney. If any impediments to the prompt allowance of the claims can be resolved by a telephone conversation, the Examiner is respectfully requested to contact the undersigned.

Respectfully submitted,



Date: October 5, 2005

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